

Name: \_\_\_\_\_

Date : \_\_\_\_\_

## LAB - FASHION A FISH

- I. **PURPOSE** - (1) To describe adaptations of fish to their environments; (2) describe how adaptations can help fish survive in their habitat (3) interpret the importance of adaptations in animals.

- II. **INTRODUCTION** - Aquatic animals are the product of countless adaptations over long periods of time. These adaptations, for the most part, are features that increase the animals' likelihood of surviving in their habitat.

When a habitat changes, either slowly or catastrophically, the species of animals with adaptations that allow them many options are the ones most likely to survive. Some species have adapted to such a narrow range of habitat conditions that they are extremely vulnerable to change. They are over-specialized and are usually more susceptible than other animals to death or extinction.

In this activity, you will design a kind of fish. You choose the adaptations that your fish will have. Each choice you make would actually take countless years to develop. As these adaptations become part of the fish's design, the fish becomes better suited to the habitat in which it lives. Because of the variety of conditions within each habitat, many different fish can live together and flourish. Some adaptations of fish are shown in the table that follows.

- III. **METHODS** -

- 1) Choose one adaptation from each of the four required adaptations listed from the attached table. That is one adaptation from "**Mouth, Body Shape, Coloration and Reproduction**."
- 2) The choose three more adaptations of your own choice.
- 3) Draw your fish and its adaptations on the poster paper provided. Color it in appropriately.
- 4) Draw in its habitat.
- 5) Provide you fish with a scientific name. (Genus and species)

IV. **RESULTS** - Attach completed fish drawing to lab report.

V. **CONCLUSION** -

1) Explain in a short essay how and why your fish can survive.

2) What were the most important environmental factors that you considered when designing your fish?

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PER. \_\_\_\_\_

**FASHION A FISH – LAB RUBRIC**

1. Essay 40pts.
  - a. Identify habitat – 10 points
  - b. Identify niche – 10 points
  - c. Identify and describe adaptations and advantages – 20 pts.
2. Fish Design and Construction 40 pts.
  - a. Common name - 10 pts.
  - b. Scientific name - 10 pts.
  - c. Adaptations labeled on drawing – 10 pts.
  - d. Neat in detail and appearance – 10 pts.
3. Participation 20 pts.

**TOTAL POINTS    100 POINTS**

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**ADAPTATION****ADVANTAGE****EXAMPLES****Mouth**

sucker shaped mouth

elongate upper jaw

elongate lower jaw

duckbill jaws

extremely large jaws

feeds on very small plants and animals

feeds on prey it looks down on

feeds on prey it sees above.

grasps prey

surrounds prey

sucker, carp

spoonbill, sturgeon

barracuda, snook

muskellunge, pike

bass, grouper

**Body Shape**

torpedo shape

flat bellied

vertical disk

horizontal disk

hump backed

fast moving

bottom feeder

feeds above or below

bottom dweller

stable in fast moving water

trout, salmon, tuna

catfish, sucker

butterfish, bluegill

flounder, halibut

sockeye salmon, chub,

razorback sucker,

coho salmon

**Coloration**

light colored belly

dark upperside

vertical stripes

horizontal stripes

mottled coloration

predators have difficulty seeing it from below

predators have difficulty seeing it from above

can hide in vegetation

can hide in vegetation

can hide in rocks and on bottom

most minnows, perch, tuna, mackerel

bluegill, crappie, barracuda, flounder

muskellunge, pickerel, bluegill

yellow and white bass, snook

trout, grouper, rockbass,

hogsucker

**Reproduction**

eggs deposited in bottom

eggs deposited in nests

floating eggs

eggs attached to vegetation

live bearers

hidden from predators

protected by adults

dispersed in high numbers

stable until hatching

high survival rate

trout, salmon, most minnows

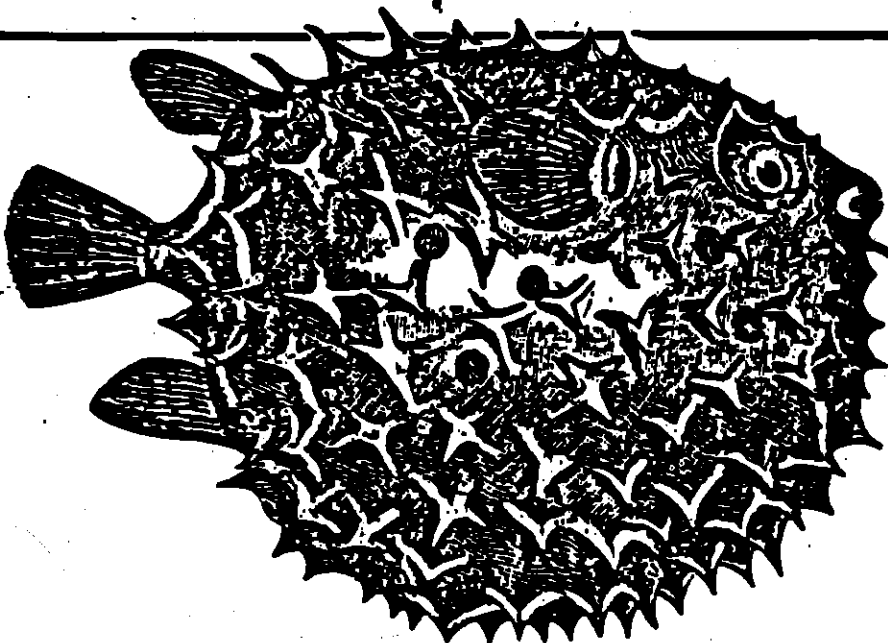
bass, stickleback

striped bass

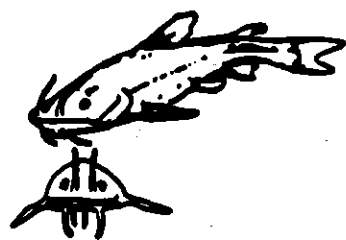
perch, northern pike,

muskellunge, carp

guppies

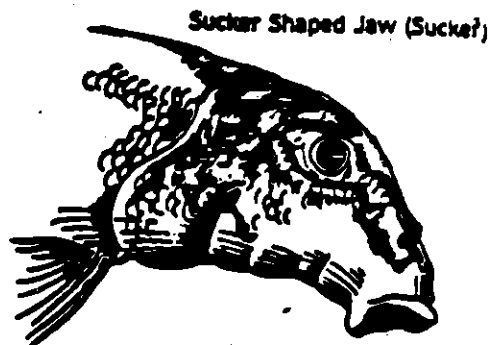


Shape



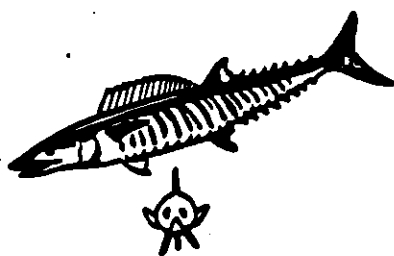
Flat Bellied (Catfish)

Mouth/Feeding



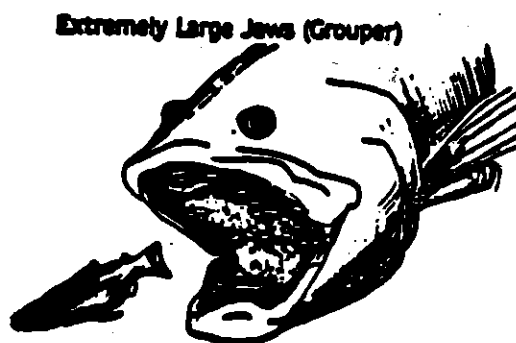
Sucker Shaped Jaw (Sucker)

Shape



Torpedo Shape (Tuna)

Mouth/Feeding



Extremely Large Jaws (Grouper)

Shape



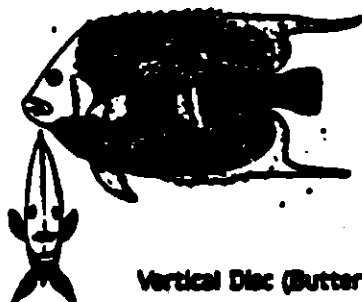
Horizontal Disc (Halibut)

Mouth/Feeding



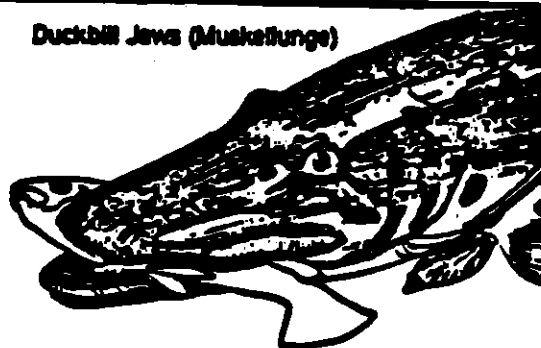
Elongate Lower Jaw (Barracuda)

Shape



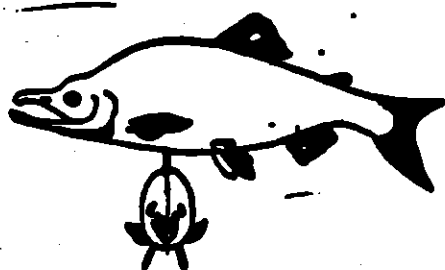
Vertical Disc (Butterfish)

Mouth/Feeding



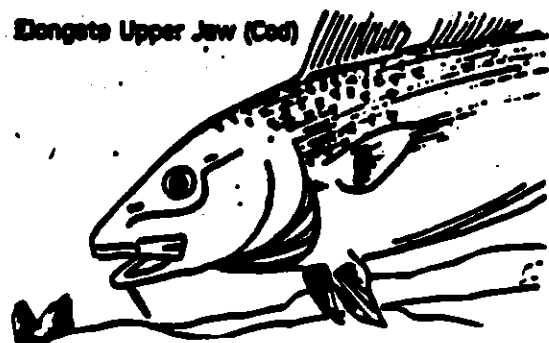
Duckbill Jaws (Muskellunge)

Shape

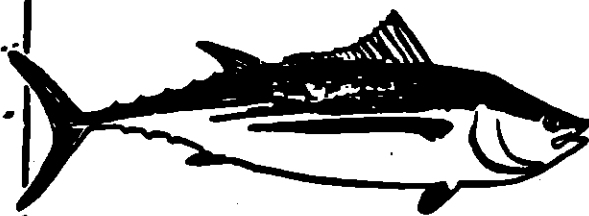


Humpbacked (Rockfish)

Mouth/Feeding

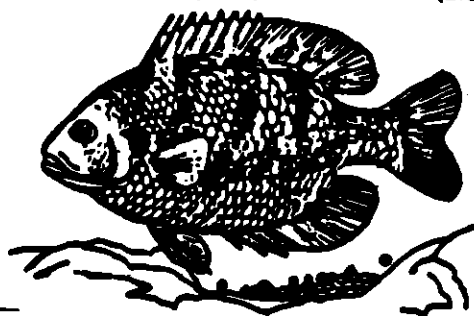


Elongate Upper Jaw (Cod)



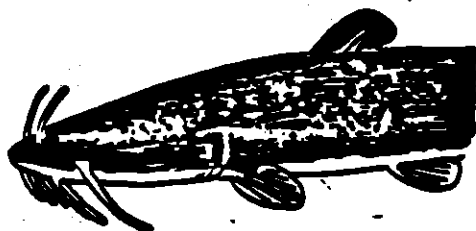
Light Colored Belly (Albacore)

Coloration



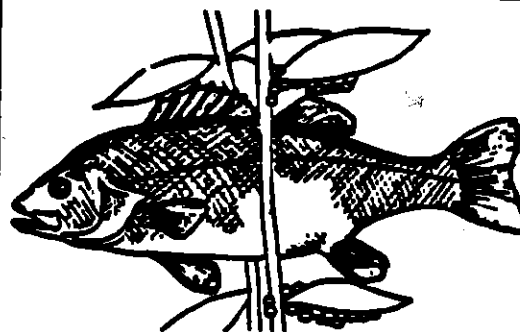
Eggs Deposited in Nests (Blue Gull)

Reproduction



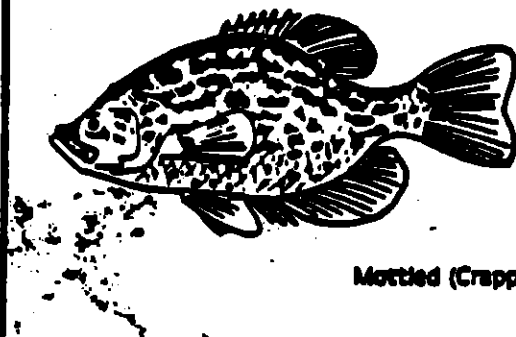
Dark Upperside (Catfish)

Coloration



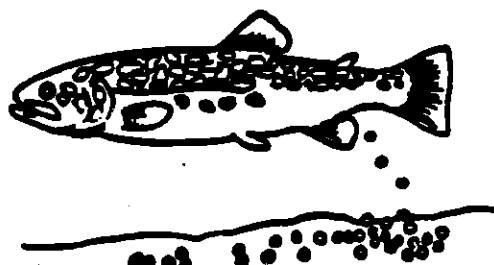
Eggs Deposited on Vegetation (Yellow Perch)

Reproduction



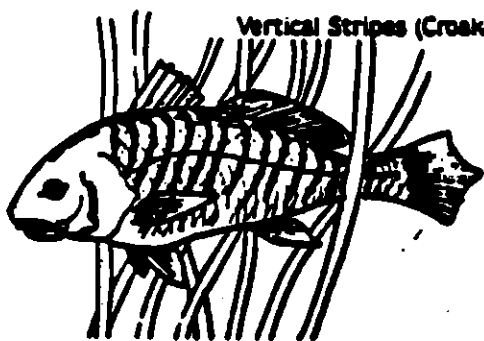
Mottled (Crappie)

Coloration



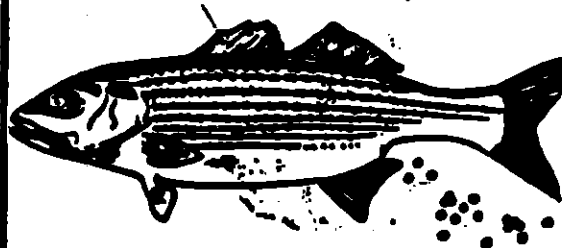
Eggs Deposited on Bottom (Trout)

Reproduction



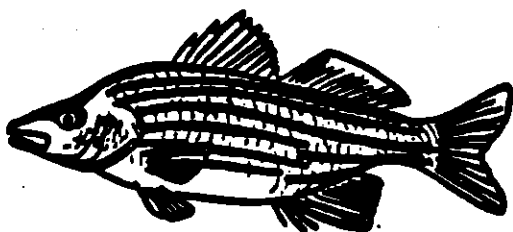
Vertical Stripes (Croaker)

Coloration



Free Floating Eggs (Striped Bass)

Reproduction



Horizontal Stripes (Yellow Bass)

Coloration



Live Birth (Gambusia)

Reproduction